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EXAMINING TEACHER MULTICULTURAL COMPETENCE IN THE CLASSROOM: FURTHER
VALIDATION OF THE MULTICULTURAL TEACHING COMPETENCY SCALE

A Thesis

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Masters of Arts

in

The Department of Psychology

by
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ABSTRACT

The focus of this study is to strengthen the technical adequacy of the *Multicultural Teacher Competency Scale* (MTCS; Spanierman et al., 2011) self-assessment measure for teacher multicultural competence. This study will also examine the relationship between it and the teacher-student relationship and teacher self-efficacy. Results show that the MTCS shows similar internal consistency reliability with a new demographic of in-service teachers. The MTCS also has predictive significance for teacher self-efficacy and student-teacher relationship scores. Implications of the study include the importance for teachers to be taught and practice this competency, as well as, validation that this construct is related to other salient classroom variables. Future research may explore the use of the MTCS with classroom observations, student grades, or behavior reports.

Keywords: *multicultural competence, culture, teacher, education*

CHAPTER 1

REVIEW OF LITERATURE

The construct and emphasis of practicing cultural competence has been around for over a half a century, starting with a discussion in the 1960s surrounding issues of ethnic or racial diversity (Eisere, 1963; White & Harris, 1961; Reger, 1965; Gray, 1963) and has become a popular subject surrounding primary and secondary teacher education and research about teacher competencies (Cochran-Smith, 2001; McAllister & Irvine, 2000; Ladson-Billings, 1995; Ward & Ward, 2003; Taylor & Sobel, 2001; Oakland, 2005). Within the past 30 years, research has gained traction in the development of school personnel, specifically teachers, self-assessments of cultural competency in order to help meet the desire that teachers be aware of their multicultural competence as well as comply with newly mandated national teacher licensing standards (NCATE, 2007, 2008; Spanierman, 2011; D'Andrea, Daniells, & Noonan, 2003; Larke, 1990; Stanley, 1996). Many of these surveys or questionnaires have not been developed with high rigor or the developers have not continued to develop the validity of their measures. Other measures have been created by university school boards, a healthcare team, or a single person, whom desires to help their staff become aware of their multicultural competence; while these are admirable efforts, they pose no research efforts to explore the validity or reliability of the measure. A compiled list, found in Appendix A, illustrates how many different measures are being disseminated to professionals in the schools. Surprisingly, despite no reported information on its technical adequacy or theoretical basis, the National Association of School Psychologists (NASP) has adapted one of these measures, the *Self-Assessment Checklist for Personnel Providing Services and Supports to Children and their Families* (National Center for Cultural Competence; NCCC, 2009), for professionals in school psychology to use for personal self-assessment and enhancement (NASP, n.d.). Clearly further research in the area of multicultural

competence self-assessments for teachers is needed given the significant interest and importance of cultural competence in education today and the dearth of rigorous research.

Definition of Multicultural Competence

Multicultural competence refers to an individual's ability to integrate their awareness and knowledge of other cultures, to build appropriate skills to use while interacting with others from various backgrounds (Barrera & Corso, 2003; Cross et al., 1989; Roberts et al, 1990; Sue, 1998; Isaacs & Benjamin, 1991; Davis, 1997). Multicultural competence in the classroom integrates both teacher and student knowledge of others' cultural backgrounds. Henry Trueba (1988) of UC Santa Barbara, states that "academic success for all children requires theoretical and practical approaches that recognize the significance of culture in specific instructional settings [i.e. the classroom], prevent stereotyping of minorities, [and] help resolve cultural conflicts in schools" (p. 270). Teachers and students can recognize others' unique cultural experiences and integrate them to make the classroom a more productive, safe environment. In general, these definitions of multicultural competence reveal a need for school professionals to acquire cultural awareness and knowledge, and then apply this information appropriately in interactions with students and staff who may differ from themselves. For the purpose of this study, the author will focus on the definition determined by the authors of the *Multicultural Teaching Competency Scale* (MTCS; Spanierman et al., 2011):

"Multicultural teaching competency is an iterative [sic] process in which teachers continuously (a) explore their attitudes and beliefs about multicultural issues, (b) increase their understanding of specific populations, and (c) examine the impact this awareness and knowledge has on what and how they teach as well as how they interact with students and their families. This dynamic process involves complex

interaction among micro-level systems or proximal factors (e.g., teachers and other educational personnel, students and their families, and so forth) and macro-level systems or more distal factors (e.g., political economy, race relations, public policy, and so forth)".

In this definition multicultural competency is interpreted in light of the teacher role and emphasizes the interactive nature of multicultural competence where teachers must continually assess their attitudes and knowledge of other cultures, and determine how these factors impact their students.

Tripartite model of multicultural competence. Often the tripartite model of multicultural competence serves as the theoretical basis for definitions of the construct. According to this model, multicultural competence is explained as being comprised of three factors: *awareness* of one's personal biases through past world experiences, *knowledge* of different cultures, and *skills* in order to work with students and clients with culturally different backgrounds (D'Andrea, et al., 1992; Miranda, 2014; Spanierman, 2013; Sue, 1992, 2001). Each of these factors is described in more detail below.

Awareness. In order to develop awareness, a person must first have a practice of self-reflection. Having an understanding of one's own culture and how it has influenced their viewpoint on majority and minority cultures, calls a person to examine their personal values, beliefs, and biases, and assumptions of ethnic minorities. Miranda (2014) points out in her chapter teaching others how to increase their multicultural competence, that there are important steps to developing this first piece of awareness. The first step is acknowledging one's own personal biases and prejudices towards other cultures. Second, a person must be aware that other cultures have their own standards, attitudes, and beliefs that may not mirror one's own culture.

By understanding that cultural groups may have different perspectives, a practitioner is reminded that they see the world through a different lens, which may explain why others behave in a certain way. The teacher in turn can help in a way that would be unique and most helpful in this case. Third, one must value the cultural diversity that exists and then be willing to reach out to the community. Lastly, there needs to be work put in towards developing a comfort level in situations that involve persons from ethnic minority populations.

Knowledge. The second aspect, knowledge, is connected closely with awareness. Knowledge can be initially gained through courses in college, continued education classes, or personal reading, there must still be the awareness to not stereotype any group based on this knowledge. Using the knowledge gained from classes and readings may provide a foundational knowledge of skills a practitioner may use while working with a person of another culture effectively, but they could possibly cause friction if there is no consideration taken for personal differences. Generalizations used to help learn about different cultures and subcultures can lead to both positive and negative assumptions. There are differences within groups, including subculture variances as well as person-to-person differences (Miranda, 2014).

Skill. It is hypothesized that the application of knowledge in and outside of the professional setting will lead a person to form deep and best practice habits for interacting with any person of a different culture. Once knowledge of a student's background has been gathered, a practitioner can proceed to act in the student's best interest, as well as tailor possible solutions to best fit the specific student's needs. Conceptualizing a problem by gathering information about a student's culture, can save a practitioner from acting unethically or wasting time on problem solving solutions that may not work (Miranda, 2014). School personnel must be ever aware of other cultures by being open-minded, self-reflective, patient, and having a desire to

continue educating themselves about other cultures and their students. Given the desire for our teachers to best serve the students, becoming culturally responsive to students is inevitable in the quickly changing demographics of the United States' public schools.

Importance of Multicultural Competence

Multicultural competence is important to support and create an optimal learning environment for children (Oakland, 2005). Washington (2003) suggested the elements of knowing, believing, and understanding others is essential to be an effective and competent teacher (Jones, 2009). The National Education Association (NEA) President, Dennis Van Roekel, has stated, "Educators with the skills, knowledge, and attitudes to value the diversity among students will contribute to an educational system designed to serve all students well" ("Why Cultural Competence," n.d.). Teachers who can teach effectively, respond sensitively, and respect students who come from a different culture than their own, show multicultural competence (Van Roekel, 2008; tolerance.org). They will create an environment that values diversity and expands on students' different ways of learning, behaving, and using language (Gay, 2010). In creating their lessons, they will incorporate students' values, beliefs, and experiences (Echevarria, 2015). However, in order to educate and support our teachers, we must provide them with the means to assess their own multicultural competence to do so.

Increase of diversity in U.S. public education. Demographics in the United States are changing rapidly due to an increase in immigration and this diversity is evident in the classroom (Moule, 2012). There are nearly 54 million students enrolled in America's public school system (Planty et al, 2009). Recently, for the first time in America, more children from minority races were born than White children (Heavey, 2012). The White population has decreased from 69.1 percent in 2000 to 63.7 percent in 2010 (USCB, 2011), both a dramatic decrease from the 1960

census when 85 percent of the United States was reported to be White (Passel & Cohn, 2008). By the year 2044 more than half of all Americans are projected to belong to a cultural minority, and by 2060, nearly one-fifth of Americans are expected to be foreign born (Colby & Ortman, 2014).

Mimicking the decrease in the White population, the school system is seeing this trend as numbers have fallen from 59 percent to 51 percent between the years of 2002 and 2012. By 2024 the U.S. Department of Education predicts this number to fall to 46 percent. Interestingly, the Black population has decreased from 17 percent to 16 percent, in 2002 and 2012 respectively, and is projected to be at 15 percent by 2024 (NCES, 2015). Increases in the Hispanic, Asian/Pacific Islander, and biracial categories seem to be the main contributors to the changing demographics and should total 40 percent of the school system by 2024. If we include the Black student population to this percentage well over 50 percent of children in our nation's school system will be from a racial and ethnic minority group, and this change will happen well within our lifetime (NCES, 2015).

Underachievement of minority students. Underachievement of minority students has unfortunately been an issue surrounding American school programs for many decades; students who start or fall behind can be more susceptible to negative consequences such as higher dropout rates, overrepresentation in special education, and poor mental health (Gay, 2000; 2002; Oaks & Lipton, 2007; White-Clark, 2005; Thompson & Neville, 1999). A leading author in multicultural competence, Geneva Gay (2000), states that teachers in the classroom must “recognize, honor, and incorporate the personal abilities of students into their teaching strategies” (p. 1).

Achievement gap. There is overwhelming evidence of children from ethnic and racial minority backgrounds not doing as well academically, as compared to their White peers in U.S.

schools. However, no one specific reason has been identified as the cause of this glaring achievement gap. O'Malley and Eklund (2013) bring to light the discrepancy between the academic achievement and aptitude scores of minority students and their white peers, as well as the greater likelihood of minority students being placed in special education classes and dropping out of school without a high school diploma or equivalent degree. Many have postulated that it is a complex problem that results from a combination of many factors, such as a lack of a multicultural curriculum, not understanding the background and culture of students, having mostly white-female teachers, high teacher turnover, a lack of knowledge of other cultures, accidental discrimination, and a host of other disadvantages (Horm, 2003; Sirin, Brabeck, Satiani, & Rogers-Serin, 2003; Darlin-Hammond, 1998; Gay, 2000; Van Roekel, 2008; Buriss & Burriss, 2004; Townsend, 2002; Manning & Baruth, 2009; Oakes & Lipton, 2007).

Overrepresentation of minorities in special education. The unfortunate fact that racial/ethnic minority children are both overrepresented in special education and underrepresented in gifted and talented programs, has been a glaring topic in education for over 40 years with most research focusing on overrepresentation (Morgan et al, 2015; Oswald, et al., 1999; Sullivan & Bal, 2013; Dunn, 1968; Artiles, Rueda, Salazar, & Higareda, 2005). These children are also more likely to be identified as at-risk with respect to their academic performance and appropriate developmental behavior. Researchers who are focused on the underrepresentation of gifted and talented students have found that minority students are less likely to be identified by school procedures (Morgan, et al., 2015; e.g., Hibel et al., 2010; Morgan, Farkas, Hillemeier, & Maczuga, 2012; Morgan, Staff, Hillemeier, Farkas, & Maczuga, 2013; Shifrer, Muller, & Callahan, 2011; Sullivan, 2013). Some have hypothesized that children

from different minority groups may not do as well as their peers on academic or mental health screeners due to the lack of their cultural sensitivity.

Dropout rates. Culturally and linguistically diverse students make up the largest population for dropout rates in America (Duran, 2008); there are higher dropout rates and lower high school completion rates for American Indians, Hispanics, Blacks, and English language learner students as compared to their White peers. The National Center for Education Information (NCES; 2015) database reported that the average American public school graduation rate hovers at about 81 percent; Asian/Pacific Islander having the highest at 93%, followed by White at 85%, Hispanics at 76%, and both American Indian and Blacks at 68% each. Negative consequences of not completing high school include a higher probability of incarceration, lower socioeconomic status, and perpetuating a familial cycle of these challenging life circumstances (Manning & Baruth 2009; Roscigno & Ainsworth, 1999).

Limited diversity in teacher workforce. Teachers are the forefront of the schools and are the individuals who have the responsibility of educating children and helping to mitigate barriers to their academic and social success. Therefore, it is important to look at the variables they bring to the classroom, including their level of multicultural competence, that may influence their effectiveness with students. A surface and observable variable that calls for more emphasis as it may relate to teachers multicultural competence is the fact that the teacher workforce does not reflect the racial/ethnic diversity of the student population (Frankenberg, 2006). The NCES (2015), provides the following demographic information of U.S. public school teachers; at 84%, the overwhelming majority of teachers are female and White. It is interesting to note the 15% increase of female teachers over the past 30 years and the six percent decrease in White teachers. Although teacher demographics are slowly increasing in racial/ethnic diversity, the trend shows

an opposite movement in gender, regardless, this is some positive change towards matching teacher and student demographics. Hispanic and Black teachers each comprise seven percent of the current teacher population, and have grown two percent and one percent respectively in the last six years. Looking at the trends since 1986, the Black teacher population has stayed constant while the Hispanic teacher population has grown by four percent (Feistritzer, 2011). Although there have been efforts to increase the racial/ethnic and cultural diversity of teachers, these efforts seem to be slow moving or not very effective; yet, it should be stated that there are other factors influencing a poor culturally responsive climate in schools. One possible underlying factor is outlined below.

Lack of knowledge. Egalite, Kisida, and Winters (2015), found that there were small but positive effects when Black and White students were assigned to race-congruent teachers but with only small effects, this leaves room for other factors such as teacher quality or perhaps the level of teacher cultural competency. Multicultural competency encompasses the way a teacher reacts towards students of different cultures, either promoting or straining the teacher-student relationship (Baker, 1999). Unfortunately, teaching in urban school districts is more challenging than in suburban or rural school districts. This leads to higher absenteeism of teachers, teacher turnover, a greater number of new or inexperienced teachers, and consequently can result in districts looking to teachers who have no teaching certification to fill empty positions (Guin, 2004). Beyond knowledge limitations due to a heightened number of new and inexperienced teachers working with racial/ethnic minority students, many teacher education programs do not offer adequate training to prepare teachers to teach in diverse classrooms (Gay, 2000). Lack of teacher experience or education may lead to incompetent culturally responsive classrooms. The result of which is urban schools having a lower level of achievement from their diverse students.

There has been some research that has shown, there may be a sect of teachers who lack knowledge in cultural competence because they are uninterested in becoming culturally competent or believe that there is no need for this skill (Taylor & Sobel, 2001). According to Belefio, Auld, and Lee (2005), a number of teachers in urban schools have a belief that student “underachievement is a consequence of conditions outside the realm of educational control: lack of parental support, teen pregnancy, lack of technology, lack of funds, economic struggles of the home, school, and/or local community, and lack of student ability” (p. 856). This lack of knowledge and appropriate response to diverse racial/ethnic groups can have lasting, detrimental effects on student’s psychological wellbeing and academic achievement.

Governing bodies. Large governing bodies in both education and psychology have strong desires to incorporate multicultural competence into the practice of their licensed professionals. They have made this known through their licensing policies, including it in ethical standards, and requiring evaluations throughout an individual’s career [i.e. in yearly reviews of teachers by principals]. The National Council for Accreditation of Teacher Education (NCATE), the large body for accreditation standards and certification for teachers, incorporates multicultural competence in its standards. Specifically, NCATE states in Standard 4 the “importance of knowledge, dispositions, and skills of pre-service teachers to work effectively with students from diverse populations” (Spanierman et al., 2011; NCATE, 2007). In addition, before gaining teacher certification, pre-service teachers have evaluations that must prove competency of skills working with students from diverse backgrounds (NCATE, 2008). Similarly, the American Psychological Association (APA), the NASP, and the American School Counselor Association (ASCA) under the American Counseling Association (ACA), also have standards that their professionals demonstrate multicultural competence in practice. The APA

has set aside a set of multicultural guidelines to help practitioners recognize the standards their professionals are to uphold. Practitioners are given the task to use culturally appropriate skills and recognize the importance of multicultural sensitivity towards different individuals (APA, 2008). ASCA published a position statement that tasks school counselors to take an active role in ensuring that they address the needs of students from culturally diverse backgrounds; they ask school personnel to “foster increased awareness and understanding of cultural diversity in the school and community” (ASCA, 2004). Lastly, NASP charges its school psychologists to advocate for evidence-based and culturally competent practice in schools (NASP, 2009a). School psychologists must support teachers, counselors, and other school personnel in providing a positive and resourceful culturally responsive classroom environment.

There has been a call to develop the academic and social potential of underachieving minority students, in result placing them in a position to be successful rather than at risk (Boykin, 2002); however, this may prove difficult as students are becoming more racially and ethnically diverse in the school system. This desire to elevate all students no matter their background, requires teachers to be trained, evaluated, and provided continual education in culturally competent practices. If teachers can tap into the intellectual ability of racially/ethnically diverse students by recognizing and tailoring instruction to best meet their needs, school achievement, classroom behavior, and psychological wellbeing of all students will improve.

Multicultural Competency and the Relation to Wellbeing of Students

A teacher’s lack of knowledge or appreciation for their students’ cultural diversity is hypothesized to result in diminished performance due to lower expectations in their academic ability (Horn, 2003; Townsend, 2002). Culturally diverse students who are chronically disengaged report that they lack positive relationships with teachers and are aware of disrespect

toward their culture or ethnicity (Suarez-Orozco, Suarez-Orozco, & Todorova, 2008). As a person in charge of cultivating a rich educational environment, teachers may, out of ignorance or unawareness, be treating children in a non-culturally sensitive manner, which may result in adverse academic effects. Students of color have performed below their abilities when exposed to discrimination and prejudice; their mental health, self-efficacy and self-concept may be compromised (Thompson & Neville, 1999). These children suffer from isolation, invisibility and inappropriate labeling in public and private school settings (Moule, 2005). This leads to the necessity of creating an environment responsive to all students and their needs, in the end as educators, we want students to thrive and be as successful as possible in an education-cultivating environment.

Although the arguments for teacher multicultural competence listed and detailed above, are ones cited frequently in the pedagogical literature, there has yet to be a positive empirical connection made between teacher multicultural competence and important classroom variables. However, findings from psychotherapy literature, such as the positive association between multicultural competency and a healthy counselor-client relationship as well as treatment efficacy (Orlinksy, Ronnestad, and Willutzki, 2004; Wampold, 2000; Vasquez, 2007), suggest that a multicultural competent teacher will have enhanced teacher-student relationships and greater effectiveness in the classroom.

Effectiveness and teacher self-efficacy. Multicultural competency can lead to more effective teaching. Teachers who have a culturally responsive classroom will connect and integrate students' experiences into the lessons and classroom environment. Research is lacking exploring the link between multicultural competence and teacher effectiveness but there has been a study that has shown multicultural competence accounts for a small variance in teacher's self-

efficacy (JohnBull, 2012) and there is a significant body of research regarding the link between teacher self-efficacy and positive teaching behaviors and student outcomes (cf. Henson, Kogan, & Vacha-Haase, 2001). More expansive is the research and evidence in the psychotherapy and counseling literature.

Psychotherapeutic literature has found that multicultural competent therapist have greater effectiveness in their client outcomes (Sue & Torino, 2005). They outline the tripartite model of multicultural competence, emphasizing the importance of all three in order to be an effective counselor with both similar and diverse clients. This mirrors the pedagogical literature stating that effective teachers, who form strong relationships with their students, have a strong level of multicultural competence. These results can help form hypotheses that a multicultural competent teacher will have a greater effect on student outcomes and if this is true, teachers in turn will have higher self-efficacy.

Teacher-student relationship. O'Malley and Eklund, (2013) state that throughout the last decade, "scholars have come to agree on the observable aspects of school environments that are theorized to reflect school climate, including teaching practices, administrative practices, school facility upkeep and management, supports for student behavior, and school safety-related practices" (O'Malley & Eklund, 2013, p. 151). They worked to tie together empirical understanding of the elements of a safe, healthy school environment and detail a five-factor model of healthy working and learning environments. The five characteristics of schools encompassing healthy, safe environments include (a) positive and productive relationships, (b) awareness of and respect for diversity, (c) transparent and unbiased norms and expectations, (d) individual value and shared purpose, and (e) opportunities for growth and achievement (O'Malley & Eklund, 2013). Respect for diversity includes all differences an individual may

possess, whether it be ethnicity, language, socioeconomic level, gender, or sexual orientation.

School may be the safest place for a child; a place where they should have full support from their administrators, teachers, and classmates to be successful no matter what their background.

Having a diverse school culture gives teachers and students an opportunity to learn from one another, especially as the U.S. continues to diversify.

Awareness and respect for diversity includes the diversity of both the student and teacher populations in the schools (O'Malley & Eklund, 2013). The teachers may have an indirect influence on how the students treat each other; learning by observation, the students will recognize how the teaching staff respects and appreciates persons of other cultures. Educators in the school are a large, if not the largest proponent and determinate of school climate. Teachers are called to be aware of their own culture, values, assumptions, and biases in order to know how they may impact their instruction in the classroom. Klump and McNeir (2005), reported on a review of over 50 articles that outline important components of culturally competent practices in education. Aspects included that encompass multicultural competence are first, that there be a climate of inclusion, respect, connection, and a caring. Teachers are also called to action, they must ask and be aware of their students' diverse backgrounds, in order to incorporate them into lesson planning and in some instances modify the language. Student's diversity should be seen as an asset in their education rather than a deficit, and finally they found, that there should be a high expectation and standard set of for all students (O'Malley & Eklund, 2013). School climates must work to incorporate their students' varying background into the schools culture; those that can foster a positive outlook on diversity will in turn have teachers with positive, supportive relationships with their students.

Treatment effectiveness in psychotherapy is largely based on the therapeutic alliance between counselor and client (Orlinksy, Ronnestad, and Willutzki, 2004; Wampold, 2000; Vasquez, 2007). Similarly, a great deal of research reveals that teacher effectiveness in the classroom is largely based on positive teacher-student relationships, with studies demonstrating the positive impact a healthy teacher-student relationship has on both academic and social student outcomes (cf. Hamre & Pianta, 2001). A healthy relationship between therapist and client includes rapport, trust, and genuineness. Psychotherapy literature suggests that the therapist contributes to this relationship by responding with cultural sensitivity; unintentional biases, such as accidental racial biases and assumptions, can cause the relationship strain and result in little or no progress in therapy (Vasquez, 2007). The therapeutic process and efficacy of treatment will only be enhanced with a culturally competent and responsive counselor. Students and clients alike must trust and be willing to learn from their teacher and therapist, respectively. A safe and healthy environment to work in for students will be enhanced when teachers practice multicultural competence. Teachers instruct their students through their academics and therapists guide their clients throughout sessions. Causing strain in teacher-student relationships with diverse students will result in students not performing well in the class academically, behaviorally, and socially. These negative consequences can add to the achievement gap, dropout rates, and behavioral challenges in ethnic minorities.

Education literature has not explored, empirically, the relationship between salient school variables [i.e. teacher self-efficacy, teacher-student relationship] and teacher multicultural competency. The present study will attempt to connect two classroom variables that have high value to their relationship with student outcomes.

Available Self-Assessments Measures of Multicultural Competence for Teachers

As teacher multicultural competence becomes more salient, measures are being adapted from psychotherapist or counselor forms. There are many self-assessments in the psychotherapy field but have problems with their development and validation [i.e. narrow demographic samples for validation and various factor structures] (Sodowsky, Taffe, Gutkin, & Wise, 1994; Ponterotto, Gretchen, Utsey, Rieger & Austin, 2002); teacher self-assessment measures have been adapted from these scales or developed with inherent limitations. There are countless measures of multicultural competence for educators in primary, secondary, and higher education that have relatively no psychometric information. Board members or personnel that wish to incorporate multicultural competence into their programs or settings have created their own measures. Unfortunately, this has resulted in resources that have not had the technical adequacy of their measure investigated.

One of the first teacher self-assessments relating to multicultural competence, the *Multicultural Teacher Concerns Survey*, did not have the teacher self-assess their multicultural competence reflected in the classroom, rather it has the teacher answer how others perceive them (Marshall, 1996). There have been other measures created to assess how comfortable a teacher is with having a diverse class such as the *Teacher Multicultural Attitude Survey* (Ponterotto, Baluch, Grieg, & Rivera, 1998). *The Multicultural Awareness, Knowledge, and Skills Survey-Teacher* (MAKSS) (D'Andrea, 2003) and *Cultural Diversity Awareness Inventory* (CDAI) (Henry, 1986) are two more examples of measures that have been created for teachers but are still lacking fundamental psychometric properties.

The MAKSS-Teacher (D'Andrea, 2003), a 41-question self-assessment, was adapted from the MAKSS- counselor version, which has substantial research, but the teacher version is

lacking any further psychometric evidence. The CDAI is a 28-question self-assessment proven to be reliable and valid, however, the factor structure rests on 6 factors (General Cultural Awareness, Culturally Diverse Family, Cross Cultural Communication, Assessment, and the Multicultural Environment; Henry, 1986; Larke, 1990). This causes concern because of the vast literature of the tripartite model of multicultural competency; the CDAI includes other factors that are not tightly confined to the model of multicultural competency.

Recently, Spanierman et al., (2011) have rigorously developed a multicultural self-assessment measure specifically designed for teachers in the primary and secondary classrooms, the *Multicultural Teaching Competence Scale* (MTCS). They used previous literature of the tripartite model of multicultural teaching competence in developing their self-assessment measure for teachers. The development, initial validation, limitations, and the call for further exploration of psychometric properties by Spanierman, are briefly described.

Construction of the scale started with defining the construct of multicultural competency. After reviewing the literature, NCATE standards, consulting an expert in the field, and receiving feedback from teacher development experts, they decided on the three-fold definition describe previously. They noted the three dimensions of multicultural teaching competency: awareness, knowledge, and skills. For item generation they divided their research team into three subteams, which came up with their own items, those lists were circulated until a number of 57 items were to be included in the preliminary MTCS (MTCS-P). After being given to graduate students and receiving feedback, they modified items and dropped one due to ambiguity leaving a 56-item scale for preliminary evaluation. The sample contained 548 participants, both in-service and pre-service teachers. The MTCS-P is on a 6-point Likert-type scale, ranging from 1 (*strongly disagree*) to 6 (*strongly agree*).

Spanierman et al. (2011) conducted three studies within the initial development of the MTCS: an exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and convergent and discriminant validity estimates comparing the MTCS to the *Teacher Multicultural Awareness Survey* (TMAS), *Social Dominance Orientation* (SDO) measure, and the *Color-blind Racial Attitudes Survey*, as well as looking at responses to a brief social desirability scale. Interestingly, they found during the EFA the measure loaded on the two factors of, skill and knowledge; this was confirmed in the CFA (Spanierman et al., 2011). The constructs of awareness and knowledge are very similar, one lending itself to the other, which may explain the loading of variables. They found a positive correlation ($r = 0.53$) to the TMAS, as well as negative correlations with the CoBRAS ($r = -.44$) and SDO ($r = -.28$).

Limitations from this study (that may be addressed by the current study) include the limited diversity of the pre-service and in-service teacher sample. From the three studies, 74% (Study 1), 76% (Study 2), and 88% (Study 3), self-identified as White and 4%, 2%, and 7%, self-identified as Black; although this sample does reflect the national statistics of teacher demographics in the U.S., it prevents from examining potential group differences in responses. This study did explore relations to other factors exploring facets of multicultural competence such as how others perceive teachers themselves as well as colorblindness, yet there was no exploration of a link between self-reported cultural competency and other salient factors in the classroom that are of great interest to schools.

Since initial validation of the MTCS both Spanierman and the author of the present study are not aware of any further validation of the survey. This study looks to expand upon initial validation with a new racial demographic of teachers and geographical location, and examine a

relationship between multicultural competence and teacher-student relationship as well as teacher self-efficacy.

Purpose and Research Questions

The proposed study extends the literature on teacher multicultural competence by providing further evidence to strengthen the technical adequacy of the *Multicultural Teacher Competency Scale* (MTCS) by Spanierman et al. (2011). The rationale for expanding the validation of the MTCS is threefold. First, it is necessary for teachers to be culturally responsive due to the increasing racial and ethnic diversity of the U.S. public schools. In the absence of culturally responsive teacher practice it is likely that schools will continue to struggle to achieve desired academic and behavioral outcomes for diverse students. As discussed earlier, experts in the field of multicultural education suggest that the lack of teacher multicultural competence is an important contributing factor to disparate outcomes for diverse students, such as the disproportionate numbers of these students dropping out of school, not completing a high school equivalent degree, underachieving in academics, displaying inappropriate classroom behavior, and being overrepresented in special education and underrepresented in gifted classifications. Second, a valid measure of teacher multicultural competence is necessary to ensure pre- and in-service teachers are performing in ways consistent with the ethical and accreditation standards that apply to them. If teachers are going to be evaluated on this domain of competence and required to be competent in this area in order to receive their teacher certification, there needs to be a measure that has been rigorously validated to support this purpose. Lastly, because some debate remains regarding the relevance of multicultural competence in schools, additional research is needed to explore the relationship of the construct to other variables of salience or interest to schools. Pedagogical literature lacks applied research in determining the relationship

of multicultural competence to important classroom variables; instead authors abundantly cite examples of the increased diversity in schools and achievement gap of cultural minorities, as reason for the necessity of this construct. Psychotherapy literature has evidence that cultural responsiveness leads to better outcomes in therapy due to a greater understanding of the client as well as the ability to respond sensitively to their varying personal history. To the author's knowledge, there has been no measurement of multicultural competence and its relation to classroom variables, which reflect student and teacher wellbeing. O'Malley and Eklund (2013), worked to piece together empirical understanding of school environments, and have created a five-pronged model of a healthy and safe school; one of the components being awareness and respect for diversity. Pedagogical literature states that understanding and appropriately responding to cultural diversity will only increase the wellbeing of students and teachers, alike. This strengthens the need for a way to measure the multicultural competency of teachers as well as measure if, and how well, it relates to other salient classroom variables.

This research aims to answer the following questions:

- (1) Does the MTCS demonstrate similar internal consistency reliability and a stable factor structure with that previously found with a new demographic of in-service teachers?
- (2) Is there a difference in mean level of multicultural competence between teachers of students who are largely of the same race/ethnicity versus teachers of students who are not?
- (3) Is teacher multicultural competence associated with teachers' reported self-efficacy in the classroom?
- (4) Is teacher multicultural competence associated with teachers' perceived relationships with their students?

CHAPTER 2 METHOD

Participants

Prior to recruitment, the study was approved by the LSU Institutional Review Board (IRB# E9778) and a power analysis was used to determine the approximate sample size necessary to achieve the recommended power of .80 (Cohen, 1988). The power analysis was conducted for the statistical procedure requiring the most power (i.e., hierarchical multiple regression analyses). It was estimated that 90 participants were necessary to detect a small to medium effect in maximum likelihood (effect size input $f^2 = .09$). Participants for this study were 85 in-service and 2 pre-service, Kindergarten through 12th grade teachers from public and private schools in Southeastern Louisiana and Texas. The sample was predominantly female (84%) and taught elementary grades (66%). Teachers identified as White (75%), African American (8%), Asian American (3%), or Latino/a (14%). Teachers mean age was 36 ($SD = 13$) and their mean years of teaching experience was eight ($SD = 8$). Students taught by teachers in the sample came from diverse backgrounds with respect to race/ethnicity and SES. The majority of students in the classrooms were identified by teachers to be from White (32%), African American (39%), or Latino/a (22%) racial/ethnic backgrounds. On average, 60% of students were reported to be eligible for receive free or reduced lunch ($SD = 43$). Forty-four percent of teachers' racial/ethnic background was the same as the majority of the students they taught. Many teachers (70-75%) reported receiving some amount of coursework and professional development on multicultural teaching practices. However, surprisingly, as much as 25 percent of teachers had received no such instruction. See Table 1 and Table 2 for more detailed information on student and teacher demographics, respectively.

Measures

Teacher demographic questionnaire. Demographic information was collected on participating teachers' age, sex, race/ethnicity, highest level of education, designation as pre- or in-service, quantity of training on multicultural education, grade level taught, and years of teaching experience. To learn more about teachers' classrooms, basic classroom information was also gathered on the number of students taught, estimated percentage of students eligible for free or reduced lunch, estimated percentage of male students and the racial/ethnic makeup of the class.

Multicultural teaching competency. The Multicultural Teaching Competency Scale (MTCS, Spanierman et al., 2011) was administered to assess three areas of multicultural teaching competencies: awareness, knowledge and skills. The MTCS is a 16-item self-assessment questionnaire reflecting teachers' self-reported skills in implementing culturally sensitive teaching practices and self-reported knowledge of theories, resources and classroom strategies for culturally responsive classroom management. The response format for the MTCS is a 6-point Likert-scale ranging from 1 (*strongly disagree*) through 6 (*strongly agree*), the higher scores indicate higher levels of multicultural teaching competence.

In the initial factor analysis of the MTCS, Spanierman et al. (2011) found that items loaded onto two factors: *multicultural teaching knowledge* and *multicultural teaching skill*. In the subsequent confirmatory factor analysis, the two factor model was found to be a good fit of the data, competing with the previous tripartite theory of multicultural competency, comprised of awareness, knowledge and skills, which formed the basis of the measure. The internal consistency reliabilities for the two subscales were .80 and .83 for multicultural teaching knowledge and skill, respectively (total MTCS scale $\alpha = .88$). The authors also included

concurrent validity estimates with the Teacher's Multicultural Awareness Survey (TMAS; Ponterotto et al., 1998), and discriminant validity with the Color-blind Racial Attitudes Scale (CoBRAS; Neville, Lilly, Duran, Lee, & Browne, 2000) and the Social Dominance Orientation (SDO; Pratto, Sidanius, Stallworth, & Malle, 2001) measure. The MTCS had a significant positive correlation with the TMAS ($r = .51$), a significant negative correlation with the CoBRAS ($r = -.44$), and a nonsignificant negative correlation with the SDO ($r = -.28$).

Teacher-student relationship. A modified version of the Student-Teacher Relationship Scale - Short Form (STRS-SF; Pianta, 2001) was used to assess teachers' perceptions of their relationships with students in their classrooms. The STRS-SF is a 15-item self-assessment survey. The scale is designed to measure patterns of conflict, closeness, and dependency in the relationship as well as overall relationship quality. It includes two subscales: *conflict* and *closeness*. Teachers answer questions on a 5-point Likert-scale format ranging from 1 (*definitely does not apply*) to 5 (*definitely applies*).

Confirmatory factor analyses resulted in a good fit for the two factor model of conflict and closeness (Tsigilis & Gregoriadis, 2008; Drugli, 2013). Estimates of the reliability (coefficient alpha) of the STRS-SF were found to be .82 for closeness and .84 for conflict. Concurrent validity was investigated and a correlational analysis showed a significant positive correlation between the conflict subscale and child externalizing problems on the Teacher Report form of the Achenbach Rating Scales ($r = .08$) and negative correlation between the closeness subscale and child externalizing problems ($r = -0.23$; Drugli, 2013). Internal consistency coefficients for the present study sample were found to be acceptable, including .84 for closeness, .76 for conflict, and .82 for the total scale.

This scale of student-teacher relationship was chosen due to the purported claim that cultural competency will be reflected in healthy relationships between students and teachers. For this project, the researcher used an adapted version of the STRS-SF consistent with the Pennsylvania Head Start Staff Wellness Survey in order to assess a teacher's perception of his/her relationship with the students in his/her classrooms as a whole (or in general; Whitaker, Dearth-Wesley, & Gooze, 2015). For example, the statement, "I share an affectionate, warm relationship with this child," was adapted to state "I share an affectionate, warm relationship with my students," or "This child openly shares his/her feelings and experiences with me," was changed to, "My students openly share their feelings and experiences with me".

Teacher self-efficacy. The Teacher Sense of Efficacy Scale - Long Form (TSES-LF; Tschannen-Moran & Woolfolk Hoy, 2001) is a 24-item self-assessment survey of teachers' self-efficacy in the classroom; it includes three subscales of *efficacy in student engagement*, *efficacy in instructional practices*, and *efficacy in classroom management*. Teachers answer questions that assess, "how much can you do" on a 9-point Likert-scale format ranging from 1 (*nothing*) to 9 (*a great deal*). In a factor analysis, developers confirmed that items loaded onto a three factor structure of efficacy for instructional practices, efficacy for classroom management, and efficacy for student engagement; each subscale having adequate internal consistency reliability at .91, .90, and .87, respectively (total TSES-LF scale $\alpha = .94$). Construct validity was examined by assessing the correlation of the TSES-LF with previously established measures of teacher self-efficacy, the Rand items (Armor et al., 1976) and an adaptation of the Teacher Efficacy Scale (TES) by Gibson and Dembo (1984). The total score of the TSES-LF was found to be significantly positively associated with the Rand items ($r = .18$ and $.53$) and the subscales of the TES ($r = .64$ and $.16$). Discriminant validity was measured using a work alienation scale,

assessing if a teacher has no intrinsic pride in their work, and the TSES-LF was found to be significantly negatively correlated with the scale ($r = -0.31$; Tschannen-Moran & Woolfolk, 2001). After completing the survey, means are computed for each of the subscales as well as the entire survey and compared to a normative sample mean: 7.1 for the TSES-LF, 7.3 for engagement, 7.3 for instruction, and 6.7 for management. Internal consistency coefficients for the present study sample were found to be acceptable, including .91 for student engagement, .89 for instructional practices, .96 for classroom management, and .97 for the total scale.

Procedures

Recruitment and consent. Currently active in- and pre-service teachers were recruited from public and private schools in southeastern Louisiana and Texas. Study recruitment followed a two-step process. First, the researcher reached out to school principals to secure permission to provide an opportunity to teachers for study participation. Second, after principals confirmed approval for teacher participation, the researcher sent out a study solicitation email providing details regarding the study and a link to the online teacher questionnaires. Teachers were also recruited for participation via social media postings (e.g. Facebook). As an incentive for participants, teachers were offered the opportunity to be entered into a drawing for gift cards to local restaurants (monetary value approximately \$10).

Data collection. Study data were collected through a secure survey software tool (i.e., Qualtrics) in the spring of 2016. Teacher participants were provided with a brief overview of the study and the possible incentive for participation via a consent script provided at the onset of the online study questionnaires. Following review of the consent script, interested participants reviewed study instructions and completed study measures via the secure survey software tool. Following completion of demographic information, completion of study measures followed in a

random order as to minimize the chance of order effects. No identifying information was gathered from teachers during data collection to ensure their anonymity. Monthly study reminders were sent out via email, restating the purpose of the study, reminding teachers of the gift certificate drawing, and thanking teachers who have participated. A total of 3 reminders were sent out across the course of the data collection period.

CHAPTER 3 RESULTS

Descriptive Statistics

Descriptive statistics for the primary study predictor (i.e., multicultural teaching competency) and dependent variables (i.e., teacher-student relationship and teaching self-efficacy) are presented in Table 3. In general, these data show that on average teachers (a) slightly agreed with statements indicating they possessed multicultural knowledge or skills, (b) somewhat agreed with statements reflecting quality teacher-student relationships, and (c) had high perceptions of their teaching self-efficacy. Interestingly, the vast majority of teachers reported that students in their classrooms were somewhat to definitely uncomfortable with physical affection or touch from them ($M = 4.46$, $SD = .83$).

Generalizability of MTCS Psychometric Properties

Internal consistency reliability. The first phase of generalizability examined the similarity in the internal consistency reliabilities across the study samples. Analyses showed that the internal consistency reliability of the MTCS subscales, knowledge and skill, and total scale were similar to those found previously, strengthening the measure. In the present study, coefficient alpha for MTCS skill, knowledge and total scale were .85, .79, and .90, as compared to the original study reliabilities of .83, .80, and .88, respectively.

Exploratory factor analysis. The second phase of generalizability examined the stability of the factor structure across the study samples. Initially, the researcher examined if the data were indeed factorable. First, examination of the anti-image correlation matrix revealed that the MSA for all items was sufficient (i.e. $> .50$) for conducting a factor analysis—with MSAs for items ranging from .74-.91 (Pett, Lackey, & Sullivan, 2003). Second, the Kaiser-Meyer-Olkin measure of sampling adequacy was .87, above the commonly recommended values (Hutcheson

& Sofroniou, 1999), and Bartlett's Test of Sphericity was significant (χ^2 (120) = 656.29, $p < .001$). Taken together, these results indicated that the factor analysis was deemed suitable with all 16 items.

Next an exploratory factor analysis was undertaken to examine the underlying factor structure of the MTCS with the present sample. Consistent with the original study, the analysis was conducted using maximum likelihood extraction with a Direct Oblimin rotation. An oblique rotation was selected due to the hypothesized correlated nature of the underlying factors. The number of factors to extract was examined based on three different factor criteria (eigenvalues > 1 , scree plot, and parallel analysis) as well as the interpretability of the extracted factors (Henson & Roberts, 2006). Three components had eigenvalues over Kaiser's criterion of one and in combination explained 51.26% of the variance: factor 1 = 21.35%, factor 2 = 23.91%, factor 3 = 6.00%. The scree plot was slightly ambiguous and revealed inflections that would suggest one or three factors. Based on these analyses, amount of variance explained by two factors, and the prior study by Spanierman et al., one-, two- and three-factor solutions were examined. However, all factor solutions were problematic largely due to the lack of interpretability (especially as related to theory) or a significant proportion of nonredundant residuals with absolute values greater than .50, suggesting problems with fit. To explore what might be contributing to these issues, a Pearson product moment correlation was conducted between the two subscales of the MTCS and compared with the Pearson correlation from the original measure development study. In the present study, the two subscales were found to be more strongly correlated, $r = .75$, $p < .001$, compared to $r = .66$, $p < .01$. This suggests that the factor structure in the present study may not have been as differentiated (i.e., multicultural knowledge and skills were not functioning as separate factors), which may have been due in part to an insufficient sample size.

Ethnic Match versus Non-Ethnic Match

An independent samples t-test revealed that mean levels of teachers' multicultural teaching competency did not differ based on whether or not their ethnicity matched that of the majority of their students, $t(85) = -1.06, p = .29$. However, follow up exploratory analyses revealed that mean levels of teachers' reported relationship with their class and teaching self-efficacy did differ significantly based on whether or not their ethnicity matched that of the majority of their students, $t(85) = 2.34, p = .02$ and $t(85) = 2.66, p = .01$, respectively. That is, teachers who reported not having an ethnic match with the majority of their students on average reported significantly lower quality relationships with their students as well as lower overall teacher self-efficacy (see Table 3).

Multicultural Teaching Competency and Teacher Self-Efficacy

First, the researcher looked for potentially relevant demographic variables (highest level of education, designation as pre- or in-service teacher, quantity of training on multicultural education, years teaching, ethnic match) that should be included in the regression analyses as covariates. Ethnic match and years teaching were found to correlate with the TSES dependent variable above .30; therefore, they were included in the regression model as covariates.

Next, prior to conducting a hierarchical multiple regression, the relevant assumptions of this statistical analysis were tested. VIF values were well below 10 and the tolerance statistics were well above .02; therefore, we can conclude that there is no collinearity within our data; the average VIF value is not substantially greater than 1, allowing no cause for concern of multicollinearity (Field, 2013).

A two stage hierarchical multiple regression was conducted with TSES as the dependent variable. Ethnic match and years teaching were entered at stage one of the regression to determine

how much of the variance was explained by these two variables, before determining how much MTCS scores predicted TSES scores above and beyond these variables. Regression statistics are presented in Table 4.

A multiple regression was used to test if scores on the MTCS significantly predicted teachers' level of self-efficacy as assessed by the TSES. The hierarchical multiple regression revealed that at Stage one, ethnic match, and years teaching contributed significantly to the regression model $F(2, 80) = 9.45, p < .001$) and accounted for 19% of the variation in teacher self-efficacy. The addition of MTCS to the regression model explained an additional 29% of the variation in the student teacher relationship score and this change in R^2 was also significant, $F(3, 79) = 10.67, p < .001$. When all 3 independent variables were included in Stage two of the regression, all variables were significant predictors of TSES scores.

Multicultural Teaching Competency and Teacher-Student Relationship

First, the researcher looked for potentially relevant demographic variables (highest level of education, designation as pre- or in-service teacher, quantity of training on multicultural education, teaching experience, ethnic match) that should be included in the regression analyses as covariates. Free and reduced lunch, ethnic match, and years teaching correlated above .30; therefore, they were included in the regression model as covariates.

Next, prior to conducting a hierarchical multiple regression, the relevant assumptions of this statistical analysis were tested. VIF values were well below 10 and the tolerance statistics were well above .02; therefore, we can conclude that there is no collinearity within our data; the average VIF value is not substantially greater than 1, allowing no cause for concern of multicollinearity (Field, 2013).

A two stage hierarchical multiple regression was conducted with STRS as the dependent variable. Free and reduced lunch, ethnic match, and years teaching were entered at stage one of the regression to determine how much of the variance was explained by these two variables, before determining how much MTCS scores predicted STRS scores above and beyond these variables. Regression statistics are in Table 5.

A multiple regression was used to test if scores on the MTCS significantly predicted a teacher's relationship with their students as assessed by the STRS. The hierarchical multiple regression revealed that at Stage one, free and reduced lunch, ethnic match, and years teaching contributed significantly to the regression model $F(3, 79) = 4.13, p < .05$ and accounted for 14% of the variation in student teacher relationship. The addition of MTCS to the regression model explained an additional 19% of the variation in the student teacher relationship score and this change in R^2 was also significant, $F(4, 78) = 4.58, p < .05$. When all 4 independent variables were included in Stage two of the regression, only MTCS total scores was a significant predictor of STRS scores.

CHAPTER 4 DISCUSSION

The purpose of this study was to provide further psychometric support of the MTCS to be used with in-service teachers, as well as explore its possible relationship to teacher self-efficacy and student-teacher relationships. Findings from the current study confirm and challenge past research on multicultural competency literature. The researcher found similar internal consistency reliability for the MTCS as compared to the developer (Spanierman et al., 2011). This aids in establishing this measure as a sound means of capturing a teacher's multicultural competency within the classroom. However, due to researcher speculation that there was not adequate sample size, results from the exploratory factor analysis did not support the two subscales that Spanierman et al. found in their initial development. Items tended to load heavily on both subscales, (a) self-reported implementation skills and behaviors of culturally sensitive teaching practices and (b) self-reported knowledge of student backgrounds, culturally responsive resources, and classroom strategies.

The MTCS scores were not significantly different between teachers who had an ethnic match between their students and teachers who did not have an ethnic match with the majority of their classroom. This finding suggests that teachers who may not ethnically identify with the majority of their students have acquired the knowledge and skills to work with them. Interestingly, teacher self-efficacy scores and student-teacher relationship scores did differ between teachers who had an ethnic match with the majority of their students and teachers who did not have an ethnic match with their students. Teachers with an ethnic match to their students had significantly higher beliefs of self-efficacy and perceived stronger relationships with their students.

When correlations were run to determine correlates for the linear regressions, no significant correlation was found between the MTCS and teacher multicultural education. No matter if a teacher had a full course on multicultural teaching practices, a portion of a class dedicated to the topic, or no formal education training at all, they all scored similarly on the MTCS. Their scores also did not significantly differ whether they received a full professional development course on multicultural teaching practices, some information within a professional development, or no information at all. Further research can investigate what is incorporated within these courses and trainings or to determine if teachers who did not have any training in multicultural teaching practices, acquire knowledge on their own. These findings may also suggest the relationship between the teacher and student may moderate their level of multicultural competency.

Results from the linear regressions indicated that scores from the MTCS was a significant predictor of TSES as well as STRS scores. These findings suggest that a teacher's knowledge, ability, and skills to work with ethnically diverse students is an important part of their self-confidence in their teaching practices as well as a factor in their relationship with their students. Knowing that multicultural competency explains a portion of teaching self-efficacy and student-teacher relationships should give a heavier weight to learning this competency within formal education training and professional development classes. It strengthens the requirement from licensing boards that teachers have this competency while completely training and throughout their teaching career. Multicultural competency may also influence a teacher's positive psychological capital if it influences their self-efficacy; a higher level of competency may result in less stress, burnout, and more job satisfaction or enjoyment.

Limitations

Although data from this investigation provides continued support for the MTCS, as well as initial evidence that this competency is related to salient classroom variables, several limitations exist. I relied solely on self-report data to validate the MTCS and explore its relation to classroom variables. Additional indicators of multicultural teaching competence are warranted such as classroom observations or student opinion. The small sample size limited my ability to determine if the factor structure of the MTCS was similar to the developers. It is noteworthy that the majority of the sample was from elementary schools, there is a need to target all grade level teachers. The majority of the teachers self-identified as White; although this reflects the national teacher demographics, this limits the ability to examine potential ethnic differences on the MTCS and its relationship to scores on the TSES and STRS. I was also unable to obtain pre-service teachers to determine if the measure remained valid with that population.

Implications and Future Directions

There is a need for an instrument that measures teachers' multicultural skill and knowledge, with adequate psychometric support and provides an efficient method of assessment, such as self-report. The MTCS can be utilized in a multitude of ways to assess in-service teachers. It can be used to determine if formal education programs or alternative certification programs are effective in preparing multiculturally competent teachers. It can also be utilized by licensing boards such as NCATE, as part of their evaluation process for pre-service teachers; it can later be used as part of in-service teacher evaluations or helping schools determine their teachers' levels of multicultural competency.

When teachers are experiencing problems within their classrooms and knowing the predictive value of MTCS scores for teaching self-efficacy and student-teacher relationship, this

could be an added measure in determining possible gaps within their skill set. This also evidences that this competency should be taught, practiced, and evaluated in order that teachers provide the best possible services to their students. Past counseling literature has established more positive, understanding client-therapist relationships result in better outcomes for clients. If we mirror this with the student teacher relationship, we can expect students that have more positive relationships with their teachers will have a more positive experience and outcome in the classroom. This will lead to student success, less drop outs, and higher education attainment levels.

I postulate that the EFA being inconclusive does not invalidate this measure but bring to light new thoughts and future research. These results may indicate that this geographically and culturally different sample of teachers, responded to these items differently than the original sample of teachers; bringing to question, are we asking the right questions to capture the construct of multicultural competency? Shouldn't persons from different cultures, subcultures, races, and ethnicities should answer these questions differently due to their unique views? Future research could compare individual item responses between teachers of differing cultures or geographical locations.

The results indicating that ethnic match did account for differences in teacher self-efficacy and perceived student-teacher relationship and not scores on self-perceived multicultural competency brings about new questions. Innately one would believe that ethnic match should predict higher scores of multicultural competency for teachers who share an ethnic match with the majority of their students; however, results from this study show differently. More exploration into this construct is needed, specifically in regards to its application within the primary and secondary schools. Would these same results hold with another demographic of

teachers or the validation study sample from Spanierman et al. (2011)? Another level of education that has not been discussed is that of higher education or the collegiate level. This construct should be just as important to a professor within their classroom, leaving a wide possibility of future projects at the university level.

Other future investigations should examine the relationship between self-reported multicultural competency by the MTCS and classroom observations, or parent/student-report. Future research could utilize the MTCS in teacher program evaluations or professional development evaluations to determine the impact on participants. The relationship to others classroom variables may be investigated such as student grades or behavior; or to see whether student grades or behavior change along with increased teacher multicultural competency through professional developments or self-education. Larger samples of teachers are also needed to determine further psychometric properties of the measure, such as factor structure.

Current administrators may use the MTCS within their schools to establish a benchmark for teachers each year as they gain new students, learn more about them, and integrate their cultures within their curriculum. Teachers may use this measure to help them gauge where they are within their multicultural competencies, identifying their strengths and weaknesses. And, as indicated before, researchers may use this tool to determine how these scores relate to grades or behavior of students in order to learn more of how this construct impacts the daily environment of the classroom.

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TABLES

Table 1

Student Demographics Information

Student Characteristics	N	% (SD)
Number of Students ^{ab}		
Percentage of Students who Receive Free and Reduced Lunch ^c		$M = 60 (43)$
Gender		
Male ^a		$M = 54 (15)$
Majority Student Race/Ethnicity ^d		
White	29	33
Black	34	39
Asian	3	3
Latino/a	19	22
Multiracial	2	2

Note. ^aMedian and ^brange of students per classroom. ^cTeacher reported estimates. ^dReflects teacher perceived race/ethnicity of the majority of students within his/her classroom.

Table 2

Teacher Demographics Information

Teacher Characteristics	N	%
Race/Ethnicity		
White	65	75
Black	7	8
Asian	3	3
Latino/a	12	14
Gender		
Female	73	84
Grade Level Taught		
Elementary (K-5 th)	57	66
Middle (6 th -8 th)	15	17
High (9 th -12 th)	12	13
Mixed (Spans K-12 th)	3	3
Highest Degree Earned		
Associates	1	1
BA/BS	63	72
Masters	19	22
Masters plus credits	4	5
Type of Certification		
Traditional	48	57
Alternative	34	41
No Certification	2	2
Multicultural Course Content		
Course devoted entirely	14	16
Info embedded in courses	35	40
Both	16	18
Neither	22	25
Multicultural PD/Continuing Education		
PD/CEU devoted entirely	14	16
Info embedded in PD/CEU	24	28
Both	23	26
Neither	26	30

Table 3

Descriptive Statistics- Average Item Scores

Scales/Subscales	Total Sample	Ethnic Match	
	<i>M (SD)</i>	Yes <i>M (SD)</i>	No <i>M (SD)</i>
Total MTCS	4.38 (.76)	4.28 (.84)	4.46 (.68)
Knowledge	4.37 (.82)		
Skill	4.39 (.80)		
Total STRS-SF	3.95 (.47)	4.09 (.37)	3.83 (.52)
Closeness	4.44 (.53)		
Conflict	2.48 (.61)		
Total TSES-LF	7.48 (.98)	7.75 (.88)	7.26 (1.01)
Student Engagement	7.22 (1.15)		
Instructional Practices	7.63 (.90)		
Classroom Management	7.58 (1.15)		

Note. MTCS = Multicultural Teaching Competency Scale; STRS-SF = Student-Teacher Relationship Scale – Short Form; TSES-LF = Teacher Sense of Efficacy Scale – Long Form

Table 4

Summary of Hierarchical Regression Analysis for Variables Predicting Teacher Self-Efficacy

Variable	β	t	sr^2	R	R^2	ΔR^2
Step 1				.44	.19	.19
Ethnic Match	-.17	-1.70	-.19			
Years Teaching	.38***	3.71	.39			
Step 2				.54	.29	.10
Ethnic Match	-.21*	-2.17	-.24			
Years Teaching	.36***	3.80	.39			
MTCS Total Score	.31*	3.29	.35			

Note. N = 87; * $p < .05$, ** $p < .01$, *** $p < .001$

Table 5

Summary of Regression Analysis for Variables Predicting Student-Teacher Relationship

Variable	β	t	sr^2	R	R^2	ΔR^2
Step 1				.37	.14	.14
Free/Reduced Lunch	-.13	-1.04	-.12			
Ethnic Match	-.02	-1.76	-.19			
Years Teaching	.18	1.64	.18			
Step 2				.44	.19	.05
Free/Reduced Lunch	-.20	-1.63	-.18			
Ethnic Match	-.20	-1.81	-.20			
Years Teaching	.15	1.42	.16			
MTCS Total Score	.24*	2.30	.25			

Note. N = 87; * $p < .05$, ** $p < .01$, *** $p < .001$

APPENDIX A

MULTICULTURAL TEACHING COMPETENCY SCALE

TEACHER BELIEFS INVENTORY SCORING PROCEDURE

Spanierman, L. B., Oh, E., Heppner, P. P., Neville, H. A., Mobley, M., Wright, C. V., Dillon, F. R., & Navarro, R. (2011). The Multicultural Teaching Competencies Scale (MTCS): Development and initial validation. *Urban Education*, 46, 440-464.

1=Strongly Disagree
2=Moderately Disagree
3=Slightly Disagree
4=Slightly Agree
5=Moderately Agree
6=Strongly Agree

1. ____ I plan many activities to celebrate diverse cultural practices in my classroom.
2. ____ I understand the various communication styles among different racial and ethnic minority students in my classroom.
3. ____ I consult regularly with other teachers or administrators to help me understand multicultural issues related to instruction.
4. ____ I have a clear understanding of culturally responsive pedagogy.
5. ____ I often include examples of the experiences and perspectives of racial and ethnic groups during my classroom lessons.
6. ____ I plan school events to increase students' knowledge about cultural experiences of various racial and ethnic groups.
7. ____ I am knowledgeable about racial and ethnic identity theories.
8. ____ My curricula integrate topics and events from racial and ethnic minority populations.
9. ____ I am knowledgeable of how historical experiences of various racial and ethnic minority groups may affect students' learning.
10. ____ I make changes within the general school environment so racial and ethnic minority students will have an equal opportunity for success.

11. ____ I am knowledgeable about the particular teaching strategies that affirm the racial and ethnic identities of all students.
12. ____ **I rarely examine the instructional materials I use in the classroom for racial and ethnic bias.**
13. ____ I integrate the cultural values and lifestyles of racial and ethnic minority groups into my teaching.
14. ____ I am knowledgeable about the various community resources within the city that I teach.
15. ____ I often promote diversity by the behaviors I exhibit.
16. ____ I establish strong, supportive relationships with racial and ethnic minority parents.

Item #12, which is bolded above, is reverse scored such that 6 = 1, 5 = 2, 4 = 3, 3 = 4, 2 = 5, 1 = 6.

Higher scores indicate greater levels of multicultural teaching competency.

Factor 1: Multicultural Teaching Skill consists of the following 10 items: 1, 3, 5, 6, 8, 10, **12**, 13, 15, 16

Factor 2: Multicultural Teaching Knowledge consists of the following 6 items: 2, 4, 7, 9, 11, and 14

For more information please contact Lisa Spanierman
lisa.spanierman@asu.edu

APPENDIX B

STUDENT-TEACHER RELATIONSHIP SCALE- ADAPTED

STUDENT-TEACHER RELATIONSHIP SCALE – SHORT FORM

Adapted for Full Classroom

Original Author: Robert C. ~~Pianta~~

*Please reflect on the degree to which each of the following statements currently applies to your relationship with your **classroom of students as a whole**. Using the scale below, circle the appropriate number for each item.*

Definitely does not apply 1	Not really 2	Neutral, not sure 3	Applies somewhat 4	Definitely applies 5
-----------------------------------	--------------------	---------------------------	--------------------------	----------------------------

1.	I share affectionate, warm relationships with the students in my class.	1	2	3	4	5
2.	Students in my class and I, always seem to be struggling with each other.	1	2	3	4	5
3.	If upset, students in my class will seek comfort from me.	1	2	3	4	5
4.	The students in my classroom are uncomfortable with physical affection or touch from me.	1	2	3	4	5
5.	The students in my classroom value their relationships with me.	1	2	3	4	5
6.	When I praise the students in my classroom, they beam with pride.	1	2	3	4	5
7.	The students in my classroom spontaneously share information about themselves.	1	2	3	4	5
8.	The students in my classroom easily become angry with me.	1	2	3	4	5
9.	It is easy to be in tune with what the students in my classroom are feeling.	1	2	3	4	5
10.	The students in my classroom remain angry or are resistant after being disciplined.	1	2	3	4	5
11.	Dealing with the students in my classroom drains my energy.	1	2	3	4	5
12.	When the students in my classroom are in a bad mood, I know we're in for a long and difficult day.	1	2	3	4	5
13.	The students in my classroom feelings' toward me can be unpredictable or can change suddenly.	1	2	3	4	5
14.	The students in my classroom are sneaky or manipulative with me.	1	2	3	4	5
15.	The students in my classroom openly share their feelings and experiences with me.	1	2	3	4	5

APPENDIX C

TEACHER SENSE OF SELF-EFFICACY SCALE

Teachers' Sense of Efficacy Scale¹ (long form)

Teacher Beliefs	How much can you do?								
Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.	Nothing	Very Little	Some Influence	Quite A Bit	A Great Deal				
1. How much can you do to get through to the most difficult students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. How much can you do to help your students think critically?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3. How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4. How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5. To what extent can you make your expectations clear about student behavior?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6. How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7. How well can you respond to difficult questions from your students ?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8. How well can you establish routines to keep activities running smoothly?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9. How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10. How much can you gauge student comprehension of what you have taught?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11. To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12. How much can you do to foster student creativity?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
13. How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
14. How much can you do to improve the understanding of a student who is failing?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
15. How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
16. How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
17. How much can you do to adjust your lessons to the proper level for individual students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
18. How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
19. How well can you keep a few problem students from ruining an entire lesson?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
20. To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
21. How well can you respond to defiant students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
22. How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
23. How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
24. How well can you provide appropriate challenges for very capable students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

APPENDIX D IRB APPROVAL FORMS



ACTION ON EXEMPTION APPROVAL REQUEST

TO: Melissa Hamilton
Psychology

FROM: Dennis Landin
Chair, Institutional Review Board

DATE: February 16, 2016

RE: IRB# E9778

TITLE: Examining Teacher Multicultural Competence in the Classroom: Further Validation of the Multicultural Teaching Competency Scale

Institutional Review Board
Dr. Dennis Landin, Chair
130 David Boyd Hall
Baton Rouge, LA 70803
P: 225.578.8692
F: 225.578.5983
irb@lsu.edu | lsu.edu/irb

New Protocol/Modification/Continuation: New Protocol

Review Date: 2/16/2016

Approved X **Disapproved**

Approval Date: 2/16/2016 **Approval Expiration Date:** 2/15/2019

Exemption Category/Paragraph: 1; 2b

Signed Consent Waived?: Yes if online; No if in-person

Re-review frequency: (three years unless otherwise stated)

LSU Proposal Number (if applicable):

Protocol Matches Scope of Work in Grant proposal: (if applicable)

By: Dennis Landin, Chairman 

PRINCIPAL INVESTIGATOR: PLEASE READ THE FOLLOWING –

Continuing approval is **CONDITIONAL** on:

1. Adherence to the approved protocol, familiarity with, and adherence to the ethical standards of the Belmont Report, and LSU's Assurance of Compliance with DHHS regulations for the protection of human subjects*
2. Prior approval of a change in protocol, including revision of the consent documents or an increase in the number of subjects over that approved.
3. Obtaining renewed approval (or submittal of a termination report), prior to the approval expiration date, upon request by the IRB office (irrespective of when the project actually begins); notification of project termination.
4. Retention of documentation of informed consent and study records for at least 3 years after the study ends.
5. Continuing attention to the physical and psychological well-being and informed consent of the individual participants, including notification of new information that might affect consent.
6. A prompt report to the IRB of any adverse event affecting a participant potentially arising from the study.
7. Notification of the IRB of a serious compliance failure.
8. **SPECIAL NOTE:** When emailing more than one recipient, make sure you use bcc. Approvals will automatically be closed by the IRB on the expiration date unless the PI requests a continuation.

*All investigators and support staff have access to copies of the Belmont Report, LSU's Assurance with DHHS, DHHS (45 CFR 46) and FDA regulations governing use of human subjects, and other relevant documents in print in this office or on our World Wide Web site at <http://www.lsu.edu/irb>

APPENDIX E UPDATED APPROVAL

ACTION ON EXEMPTION APPROVAL REQUEST



Institutional Review Board
Dr. Dennis Landin, Chair
130 David Boyd Hall
Baton Rouge, LA 70803
P: 225.578.8692
F: 225.578.5983
irb@lsu.edu | lsu.edu/irb

TO: Melissa Hamilton
Psychology

FROM: Dennis Landin
Chair, Institutional Review Board

DATE: March 15, 2016

RE: IRB# E9778

TITLE: Examining Teacher Multicultural Competence in the Classroom: Further Validation of the Multicultural Teaching Competency Scale

New Protocol/Modification/Continuation: Modification

Brief Modification Description: Solicit individual teacher participation through social media.

Review date: 3/15/2016

Approved X **Disapproved** _____

Approval Date: 3/15/2016 **Approval Expiration Date:** 2/15/2019

Re-review frequency: (three years unless otherwise stated)

LSU Proposal Number (if applicable):

Protocol Matches Scope of Work in Grant proposal: (if applicable) _____

By: Dennis Landin, Chairman 

PRINCIPAL INVESTIGATOR: PLEASE READ THE FOLLOWING –
Continuing approval is CONDITIONAL on:

1. Adherence to the approved protocol, familiarity with, and adherence to the ethical standards of the Belmont Report, and LSU's Assurance of Compliance with DHHS regulations for the protection of human subjects*
2. Prior approval of a change in protocol, including revision of the consent documents or an increase in the number of subjects over that approved.
3. Obtaining renewed approval (or submittal of a termination report), prior to the approval expiration date, upon request by the IRB office (irrespective of when the project actually begins); notification of project termination.
4. Retention of documentation of informed consent and study records for at least 3 years after the study ends.
5. Continuing attention to the physical and psychological well-being and informed consent of the individual participants including notification of new information that might affect consent.
6. A prompt report to the IRB of any adverse event affecting a participant potentially arising from the study.
7. Notification of the IRB of a serious compliance failure.
8. **SPECIAL NOTE: Make sure you use bcc when emailing more than one recipient. Approvals will automatically be closed by the IRB on the expiration date unless the PI requests a continuation.**

**All investigators and support staff have access to copies of the Belmont Report, LSU's Assurance with DHHS, DHHS (45 CFR 46) and FDA regulations governing use of human subjects, and other relevant documents in print in this office or on our World Wide Web site at <http://www.lsu.edu/irb>*

APPENDIX F

CONSENT FORMS

Administrator Consent

I am Melissa Hamilton, from Louisiana State University, I am a doctoral student in the School Psychology program working on my thesis project. The following study and research collected will help me understand teacher's experiences and perceptions in the classroom. Specifically, it will help me gain a better understanding of teachers' relationships with their students, sense of self-efficacy in the classroom, and the multicultural considerations relevant for their class.

Participants of this study will include pre-service and in-service teachers from Texas and the southeastern region of Louisiana. If you allow your pre- or in-service teachers to be solicited and participate, the study will take approximately 15 minutes to complete as participants answer three brief questionnaires pertaining to their classroom experiences. Responses will be gathered either electronically or in person based on participant and site preferences. Participation is voluntarily. In-service and pre-service teachers may choose to stop participation at any time. Responses will be completely anonymous as the researchers are not collecting any identifying information (i.e. name, birthdate, or school name). Teacher privacy is of upmost importance; therefore, by not collecting identifying information, anonymity will be protected. There are no known risks associated with participation in this study. Benefits include contribution to research on teacher experiences and practices. As an incentive for participation, in-service teachers may be entered into a raffle for a chance to win a \$10 gift card and pre-service teachers may either be entered into the gift card drawing or earn extra course credit, to be determined by the lead professor.

If you would like a copy of this consent letter for your records, please let the primary researcher know. If you have any questions regarding the research, contact Melissa Hamilton at mhami33@lsu.edu or 713-202-1478. You can also contact Dr. Anna Long at along@lsu.edu or 225-578-7605. This study has been approved by the LSU IRB. For questions concerning participant rights, please contact the IRB Chair, Dr. Dennis Landin, 225-578-8692, or irb@lsu.edu.

Consent for solicitation:

The study has been discussed with me and all my questions have been answered. I agree to solicit the participation of my pre-service or in-service teachers for this study.

Signature: _____ Date: _____

APPENDIX G

PARTICIPANT CONSENT SCRIPT

Consent Script

Study Title: Examining Teacher Multicultural Competence in the Classroom: Further Validation of a Teacher Multicultural Education Scale

Performance Site: Elementary, middle, and high schools in Texas and southeastern Louisiana, and public universities in southeastern Louisiana.

Investigators: The following investigators are available for questions about the study,
M–F, 9:00 am–4:30 pm
Melissa Hamilton, mhami33@lsu.edu, (713) 202-1478
Anna Long, PhD, along@lsu.edu, (225) 578-7605

Purpose of the study: The following study and research collected will help me understand teacher's experiences and perceptions in the classroom. Specifically, it will help me gain a better understanding of teachers' relationships with their students, sense of self-efficacy in the classroom, and the multicultural considerations relevant for their class.

Participant inclusion: Must be pre-service (i.e. education students) or current in-service K-12th grade education teacher.

Number of participants: Approximately 125

Study Procedures: The study will take approximately 10-15 minutes to complete as participants answer three brief questionnaires pertaining to their classroom experiences and practices. Responses will be gathered either electronically or in person via paper-and-pencil based on participant and site preferences.

Benefits: Participating pre- and in-service teachers will be contributing to research on teacher experiences and practices, including multicultural considerations relevant to their classrooms. In-service teachers will have the opportunity to be entered in a raffle for a chance to win a \$10 gift card and pre-service teachers will either be entered into the drawing for a gift card or be able to earn extra course credit, to be determined by the lead professor.

Risks: There are no known risks associated with participation in this study.

Right to Refuse: In-service and pre-service teachers may choose to not participate or stop participation at any time without penalty or loss to any benefit to which they might otherwise be entitled.

Privacy: Responses will be completely anonymous as the researchers are not collecting any identifying information (i.e. name, birthdate, or school name). Teacher privacy is of upmost importance; therefore, by not collecting identifying information, anonymity will be protected.

Consent: The study has been discussed with me and all my questions have been answered. I may direct additional questions regarding study specifics to the investigators. This study has been approved by the LSU IRB. For questions concerning participant rights, please contact the IRB Chair, Dennis Landin, (225) 578-8692 or irb@lsu.edu.

By continuing this survey, you are giving consent to participate in this study.

VITA

Melissa Hamilton, a native of Sugar Land, TX, received her bachelor's degree at the University of Houston in 2011. She then started a counseling master's degree program in the fall of 2012 where she began seeing children at a private practice. It was there where her desire to reach a broader range of children started. After graduation in 2014, she started at Louisiana State University pursuing a doctoral degree in school psychology.